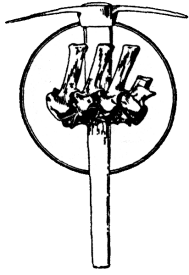


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LATEST CRETACEOUS AND EARLY PALEOCENE MAMMALS
FROM MAKOSHIKA STATE PARK, WILLISTON BASIN,
EASTERN MONTANA

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Samples of fossil mammals on both sides of and near to the Cretaceous-Tertiary (K-T) boundary in the same outcrop area are extremely rare. Here we report the discovery of mammals from several geographically unspecified localities in the Hell Creek Formation and from a single well-documented locality in the Tullock Formation of Makoshika State Park, Williston Basin, Eastern Montana. These localities were discovered over a number of years of fossil collecting by Dr. Robert W. Hiatt of Glendive, Montana.

The Hell Creek Formation localities contain well-preserved gnathic and/or dental specimens of the Lancian (latest Cretaceous) taxa *Meniscoessus robustus*, *Didelphodon vorax*, *Didelphodon* sp., and *Pediomys florencae*. Isolated postcranial specimens are also present. On the basis of stratigraphic and palynologic studies, the Tullock Formation Hiatt Locality, named for its discoverer, is 10.3 m above the K-T boundary. The boundary occurs in an olive black claystone within 0.3 m of the overlying basal Tullock Formation lignite used to demarcate the contact between the Hell Creek and Tullock formations. Approximately 25 teeth, most of them fragmentary, were collected from the basal 1.5 m of a thick, yellowish gray, intraclastic conglomerate-bearing, fine-grained sandstone. Included in the sample are representatives of neoplagiaulacid and eucosmodontine multituberculates, as well as oxyclaenine and anisonchine "condylarths." These taxa indicate a Puercan (early Paleocene) age. Future work at the Hiatt and Hell Creek Formation localities promises to elucidate the controversies surrounding terrestrial vertebrate extinction and mammalian biochronology across the K-T boundary as well as the time of the radiation of various eutherian taxa in North America (e.g., "condylarths").